

DECEMBER 2006

## 2006 ANNUAL REPORT for the WEST LAFAYETTE ENGINEERING DEPARTMENT

The following is a brief summary of the projects, developments, and day to day operations of the West Lafayette City Engineer's Office in 2006.

### **Road Projects:**

- **Tapawingo South:**
  - Construction began in January 2006.
  - Dynamic Compaction was utilized to densify and prepare the sub-grade for construction of the new road.
  - Two separate test strips using dynamic compaction were completed and neither showed any improvement in compaction or density.
  - In March, West Lafayette, INDOT, and FHWA all agreed to delete dynamic compaction from the project and to design an undercut/fill option to improve the subgrade.
  - In April, West Lafayette hired HNTB to design the undercut/fill option for the project. INDOT did not recognize HNTB as a pre-qualified geotechnical engineering design firm and was not originally willing to accept their design.
  - In June, INDOT geotech reluctantly agreed to accept the HNTB design since West Lafayette paid for the design locally and no federal dollars were used to fund the engineering of the undercut/fill proposal.
  - Finally in August, the exact methods, materials and extents of the undercut/fill design were hammered out between INDOT and the project team and change orders were written to allow the contractor to begin work on the road sub-grade again. The change orders allowed for completion of the surface asphalt in the Spring of 2007. The contractor had made progress on constructing new turn lanes, utility relocations, and new signals during this down time.
  - The contractor was able to begin work on the undercut/fill by the end of August, however progress was very slow due to inadequate trucking and the contractor's lack of adequate construction supervision.

- The contractor has not reached the winter stopping point that was included in the previous change orders. A strong effort has been made during November and December to get as much work completed as the weather will allow, however it is unlikely that all work planned for 2006 will be completed this year.
- Most of the new concrete curbs and base asphalt layers have been completed, and the new signals at SR26 and US231 are as far along as the project sequencing will allow.
- Work will eventually cease this year due to weather and the job will be completely winterized. Work will resume in the spring of 2007.
- **Lindberg Road:**
  - After completion of the temporary fix at the end of 2005, the city agreed to continue monitoring elevations and future settlement.
  - Settlement readings were taken monthly between January and August.
  - There has been some overall settlement between piling locations, however not to the magnitude that was seen in 2005-2006.
  - The main issue remains localized elevation differences between pile locations and unsupported locations. This creates the washboard effect. The entire road is not settling or moving down, rather areas between the piles are virtually unsupported and do not have enough strength within themselves to secure the subgrade in place. Therefore the areas are able to continually pump with changing moisture conditions.
  - The city also agreed to collect samples of the subgrade for testing to see if the material meets the required specification. This testing has not yet occurred, although a plan is being prepared to obtain the samples.
- **Purdue Transportation Plan:**
  - Butler, Fairman & Seufert (BF&S) was selected as the lead consultant for design engineering. HE-BFS is a sub-consultant working with traffic related issues and Rundell Ernstberger & Associates (REA) are sub-consultants working on landscape design and aesthetics.
  - Contracts for design engineering services have been approved by the Board of Works and INDOT.
  - Field survey work began in September.
  - REA was also contracted by Purdue to develop aesthetic standards to be used throughout implementation of the ring road to provide a consistent identity for the project and the traffic pattern. The city agreed to a percentage share in this effort and will use the concepts developed to help transition the campus areas into the surrounding city areas such as the Village.
  - It will take nearly 4 years to complete the design and begin construction for the first phase of the overall plan. This is primarily due to the review time required by INDOT, but is also necessary to allow US231 construction to progress to a point where the transportation plan can be implemented.
- **Salisbury Street Safety Improvements:**
  - Planning and design for the first phase of safety improvements was completed in the spring.

- The low bid was to Fairfield Contractors of Lafayette. Construction was scheduled to start in late April, but was delayed due to utility relocations and right-of-way acquisition.
- Construction work started on the south end of the project (Forest Hill to Robinson) with the goal of finishing the areas around Happy Hollow school prior to the start of the school year. The work required about an extra week after school started.
- After the south half was completed, construction began on the remainder of the project (Riley to Forest Hill). Again utility relocations delayed progress.
- With the exception of traffic signal work at Grant Street, landscaping and the asphalt overlay, all new construction has been completed. The remaining items will be completed in the spring of 2007.
- **Cumberland Avenue Reconstruction:**
  - The Schneider Corporation was selected as the design consultant in April.
  - A contract was negotiated and signed with Schneider in November. The focal point of this contract will be to collect input from the community for the scope of the project. The first public open house was held on 12/13/06.
  - Traffic operations analysis will also be completed as a part of this contract and several design alternatives will be created. The community will have the opportunity to see these alternatives and make comments.
  - A preferred alternate will be selected by the fall of 2007. At that time a new contract will be required to begin survey, design, and preparation of construction documents.
- **2006 Street Resurfacing:**
  - Work was completed in July on the 19 streets, or segments of streets, that were resurfaced.
  - Milestone Contractors placed nearly 3800 tons of asphalt and installed over 1200 lft of new concrete curb.
  - Approximately \$350,000 of MVH funds were used.
  - Universal access ramps were installed and several curb and drive approach repairs took place as part of the resurfacing project.
- **2007 Street Resurfacing:**
  - Engineering is currently updating the three to five year planning window for street resurfacing.
  - A street inventory was taken this year and every street was rated based primarily on the pavement condition. This will help in selecting streets to be resurfaced and prioritizing work each year.
  - The 2007 Street Resurfacing Project is under design and cost estimates are being prepared.
- **Yeager Road Reconstruction:**
  - An RFQ for design services was sent out in December.
  - A consultant will be selected in January or February of 2007 to begin design efforts for reconstructing Yeager Road between US231 and US52.

## **Sidewalk Projects:**

- **Indian Trail Universal Access Ramp Installation Project:**
  - 19 new curb ramps were installed along Indian Trail Drive this year.
  - Work started in July and was completed in November.
  - CDBG funds were used to pay for this project.
  - Several sidewalk spot replacements were also completed as part of the project. The focus was those areas that were ranked as the most hazardous (large upheavals due to street trees, for example). 13 locations that were repaired.
- **Sycamore Lane Traffic Calming:**
  - The city applied for a grant from INDOT for the use of Hazard Elimination and Safety funds from the FHWA to implement traffic calming measures along Sycamore Lane.
  - In January the city revised our application based on comments from the review committee. The committee did not discuss the application until their August meeting.
  - At the August meeting our project was discussed and given a favorable recommendation by a 3 to 2 vote.
  - In December, the project was officially programmed into the INDOT tracking system and given a designation number. A request for engineering firms to submit statements of qualifications was also sent out in December.
  - The project design and any land acquisition will be funded 100% locally. Construction and inspection will be funded by the grant with a 90/10 split between federal and local funds.

## **Other Projects:**

- **Annexation:**
  - Annexation of 1178 acres to the north of Kalberer Road was completed in August. Several public hearings and meetings took place as a part of the process. No remonstrance was filed.
- **Village Parking Study:**
  - The study was completed and presented to City Council in March.
  - The written report, in its entirety, is posted on the City website. The Engineering Department requested comments for 90 days after the study was posted to help direct the next course of action for the City.
  - An informational meeting with several Village area merchants was held in November. Additional comments from the Village area merchants are currently being sought. No comments have been received to date.
  - The study has led the Engineering Staff to believe a recommendation to relax parking development standards in the Village area may be appropriate at this time. This would require an amendment to the Unified Zoning Ordinance through both the Area Plan Commission and the WL City Council.

- **City Hall Building:**
  - Work was completed on the lower level renovation in February. The 2<sup>nd</sup> floor coffee area was also renovated.
  - A key card entry access system was installed and set up to allow better building security and safety.
  - INTAC management continues to aid city staff in facility maintenance and operation. Many improvements have been made in HVAC controls that have resulted in increased building comfort as well as energy savings.
- **City Hall Parking Lots:**
  - The city hired TBird Design Services to perform a topographic survey of the upper city hall parking lot as well as parts of the remote lot on Salisbury.
  - A preliminary plan was created to provide a new sidewalk between the two parking lots.
  - Engineering Staff is currently attempting to contact the property owners to discuss the project and their willingness to allow an access easement in order to install the sidewalk.

### **Planned Developments:**

- **Completed in 2006:**
  - Chipotle Mexican Grill (Restaurant)
  - Fairway Knolls (Apartments)
  - Global Holdings (Apartments and Retail)
  - State Street Speedway (Gas Station)
  - Sycamore Pointe (Apartments)
- **Ongoing in 2007:**
  - Chauncey Square (Apartments and Retail)
  - Westminster Village (Single Family)
  - Catherwood Gardens (Single Family)
  - Linwood (Apartments)
  - Kitty's Corner (Apartments)
  - Fairway Knolls II (Apartments)
  - Lauren Lakes (Single Family)
  - The Villas at Stonebridge (Single Family)

### **Sewers and Drainage:**

- **Western Interceptor:**
  - Design work for the first phase of the sewer was completed in September.
  - Projects bids were received in October, with Atlas Excavating being the low bidder. After careful review of the bid documents, Atlas was awarded the contract.

- A preconstruction meeting was held and a notice to proceed was authorized in November. The notice was approximately 2 weeks later than planned due to difficulties in obtaining utility easements from Purdue University and PRF.
- **NPDES Phase II Implementation:**
  - The Engineering Department continues implementation of new stormwater regulations particularly those for new construction.
  - Monthly reports of all activities in connection with our minimum control measures are submitted to the County Surveyor.
- **Sagamore Pond:**
  - Problems continue with the function of this drainage pond at the corner of Cumberland Ave. and US52.
  - INDOT has inspected the situation and agrees that a blockage or collapse has occurred within the US52 right-of-way. INDOT has performed a survey and is currently designing and programming a repair of the outlet tile.
  - Any additional work effort on the city's part will be coordinated as a part of the reconstruction of Cumberland Ave.
- **Boes Ditch:**
  - Improvements to this drain will be incorporated as part of the design effort for the reconstruction of Cumberland Ave.

## **Major Building Projects:**

### **Completed in 2006:**

- Nine Irish Brothers
- Temple Israel
- Basham Apts. at 223 Pierce Street
- Beta Theta Pi
- City Hall Renovation

### **Continuing into 2007:**

- International Expansion
- SSCI Expansion
- Med Institute Remodel of the Great Lakes building
- Addition to Chiropractic Clinic
- Sigma Chi Fraternity
- College Station Expansion
- Ross Enterprise Center

## **Subdivisions:**

- Amberleigh Village
- Arbor Chase
- St. Joseph's Court
- Prophet's Ridge
- Appleridge & The Orchard

- Wake Robin
- Catherwood Gardens
- Lauren Lakes
- The Villas at Stonebridge

**Building Permits:** (as of November 30, 2006)

- Total building permits issued: 357
- Total constructed dollar value: \$40,255,061

**Plan Reviews:** (as of November 30, 2006)

- Total plan reviews: 210

**Inspections:** (as of November 30, 2006)

- Total building inspections: 1,405

**Excavation Permits:** (as of November 30, 2006)

- Total excavation permits issued: 283

**NPDES Permits:** (as of November 30, 2006)

- Total NPDES permits issued: 3

**Neighborhood Parking Permits Issued:** (as of November 30, 2006)

Zone 1:	188
Zone 2:	28
TOTAL:	216

Respectfully Submitted,

David M. Buck, P.E.  
City Engineer